

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Original): A low-carbon resulfurized free machining steel product excellent in finished surface roughness, comprising, on the percent by mass basis, C: 0.02% to 0.12%, Si: 0.01% or less, Mn: 1.0% to 2.0%, P: 0.05% to 0.20%, S: 0.30% to 0.60%, N: 0.007% to 0.03%, with the balance being Fe and inevitable impurities, the contents of Mn and S satisfying the following conditions: $0.40 \leq \text{Mn} * \text{S} \leq 1.2$ and $\text{Mn}/\text{S} \geq 3.0$, and the steel product having a ferrite-pearlite structure as its metallographic structure, wherein the average width (μm) of sulfide inclusions in the steel product is $2.8 * (\log d)$ or more, wherein d is the diameter (mm) of the steel product, and pro-eutectoid ferrite in the metallographic structure has a hardness HV of 133 to 150.

Claim 2 (Original): A low-carbon resulfurized free machining steel product excellent in finished surface roughness comprising, on the percent by mass basis, C: 0.02% to 0.12%, Si: 0.01% or less, Mn: 1.0% to 2.0%, P: 0.05% to 0.20%, S: 0.30% to 0.60%, N: 0.007% to 0.03%, with the balance being Fe and inevitable impurities, the contents of Mn and S satisfying the following conditions $0.40 \leq \text{Mn} * \text{S} \leq 1.2$ and $\text{Mn}/\text{S} \geq 3.0$, and the steel product having a ferrite-pearlite structure as its metallographic structure, wherein the average width (μm) of sulfide inclusions in the steel product is $2.8 * (\log d)$ or more, wherein d is the diameter (mm) of the steel product, and a difference in deformation resistance at a strain of 0.3 between 200°C and 25°C is 110 MPa or more and 200 MPa or less, the deformation resistances being determined at a deformation rate of 0.3 mm/min in a compression test.

Claim 3 (Currently Amended): The low-carbon resulfurized free machining steel product excellent in finished surface roughness according to Claim 1 ~~one of Claims 1 and 2~~, wherein the steel product ~~contains~~ further comprises 70 ppm or more of dissolved nitrogen.

Claim 4 (Currently Amended): The low-carbon resulfurized free machining steel product excellent in finished surface roughness according to Claim 1 ~~any one of Claims 1 to 3~~, wherein the machining steel product comprises a Cr content ~~[[is]]~~ of not more than 0.04%, and wherein the total content of Ti, Nb, V, Al and Zr is not more than 0.020%.

Claim 5 (Currently Amended): The low-carbon resulfurized free machining steel product excellent in finished surface roughness according to Claim 1 ~~any one of Claims 1 to 4~~, further comprising one or both of Cu: more than 0.30% and equal to or less than 1.0 % and Ni: more than 0.20% and equal to or less than 1.0%.

Claim 6 (Currently Amended): A method for producing a low-carbon resulfurized free machining steel product excellent in finished surface roughness, comprising ~~the steps of~~ casting a steel having the composition as defined in Claim 1 ~~any one of Claims 1 to 5~~, and controlling, before the ~~step of~~ casting, free oxygen (Of) to a content of 30 ppm or more and less than 100 ppm and the ratio Of/S of Of to S to within a range from 0.005 to 0.030, Of and S being contained in molten steel before casting.

Claim 7 (New): The low-carbon resulfurized free machining steel product excellent in finished surface roughness according to Claim 2, wherein the steel product further comprises 70 ppm or more of dissolved nitrogen.

Claim 8 (New): The low-carbon resulfurized free machining steel product excellent in finished surface roughness according to Claim 2, wherein the machining steel product comprises a Cr content of not more than 0.04%, and wherein the total content of Ti, Nb, V, Al and Zr is not more than 0.020%.

Claim 9 (New): The low-carbon resulfurized free machining steel product excellent in finished surface roughness according to Claim 3, wherein the machining steel product comprises a Cr content of not more than 0.04%, and wherein the total content of Ti, Nb, V, Al and Zr is not more than 0.020%.

Claim 10 (New): The low-carbon resulfurized free machining steel product excellent in finished surface roughness according to Claim 2, further comprising one or both of Cu: more than 0.30% and equal to or less than 1.0 % and Ni: more than 0.20% and equal to or less than 1.0%.

Claim 11 (New): The low-carbon resulfurized free machining steel product excellent in finished surface roughness according to Claim 3, further comprising one or both of Cu: more than 0.30% and equal to or less than 1.0 % and Ni: more than 0.20% and equal to or less than 1.0%.

Claim 12 (New): The low-carbon resulfurized free machining steel product excellent in finished surface roughness according to Claim 4, further comprising one or both of Cu: more than 0.30% and equal to or less than 1.0 % and Ni: more than 0.20% and equal to or less than 1.0%.

Claim 13 (New): A method for producing a low-carbon resulfurized free machining steel product excellent in finished surface roughness, comprising casting a steel having the composition as defined in Claim 2, and controlling, before the casting, free oxygen (Of) to a content of 30 ppm or more and less than 100 ppm and the ratio Of/S of Of to S to within a range from 0.005 to 0.030, Of and S being contained in molten steel before casting.

Claim 14 (New): A method for producing a low-carbon resulfurized free machining steel product excellent in finished surface roughness, comprising casting a steel having the composition as defined in Claim 3, and controlling, before the casting, free oxygen (Of) to a content of 30 ppm or more and less than 100 ppm and the ratio Of/S of Of to S to within a range from 0.005 to 0.030, Of and S being contained in molten steel before casting.

Claim 15 (New): A method for producing a low-carbon resulfurized free machining steel product excellent in finished surface roughness, comprising casting a steel having the composition as defined in Claim 4, and controlling, before the casting, free oxygen (Of) to a content of 30 ppm or more and less than 100 ppm and the ratio Of/S of Of to S to within a range from 0.005 to 0.030, Of and S being contained in molten steel before casting.

Claim 16 (New): A method for producing a low-carbon resulfurized free machining steel product excellent in finished surface roughness, comprising casting a steel having the composition as defined in Claim 5, and controlling, before the casting, free oxygen (Of) to a content of 30 ppm or more and less than 100 ppm and the ratio Of/S of Of to S to within a range from 0.005 to 0.030, Of and S being contained in molten steel before casting.

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Preliminary Amendment

Claim 17 (New): The steel product of Claim 1, in the form of a nipple.

Claim 18 (New): The steel product of Claim 1, in the form of a screw.

Claim 19 (New): The steel product of Claim 1, in the form of a wire rod.

Claim 20 (New): The steel product of Claim 1, in the form of a steel bar.